

FOREWORD

This Engineering Evaluation / Cost Analysis (EE/CA) Action Memorandum document represents the selected action for the 323-Acre Wooded Site of Jefferson Proving Ground, located in Madison, Indiana. The United States Army Soldier and Biological Chemical Command is the lead response authority under the Defense Environmental Restoration Program (DERP) at this facility and developed this recommendation consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended, and consistent with the National Contingency Plan (NCP). This decision is based on the information contained in the administrative record for the site. This document has been approved by the undersigned.

_(Copy Signed) _____
SIGNATURE

John C. Doesburg

Major General, USA

21 Feb 2001

1.0 Introduction. Jefferson Proving Ground (JPG) is a Base Realignment and Closure (BRAC) site that is located in Jefferson, Ripley, and Jennings Counties, Indiana. JPG was used as a U.S. Army Proving Ground between 1941 and 1995. Based on historic data, of the more than 27 million ordnance and explosives (OE) items tested at JPG's ranges, approximately 1.5 million may remain. Previous studies as well as OE clearance operations have confirmed the presence of OE at JPG.

2.0 Statement of Basis and Purpose.

2.1 This decision document presents the selected action for the 323-Acre Wooded Site of JPG, which is located on the western edge of the cantonment area of the former base. The Ordnance Response Program addresses the detection and disposal of unexploded ordnance that creates an imminent and substantial endangerment to the public health, welfare, or the environment. The decision process is consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

2.2 The decision outlined in this document is based on the administrative record for the site. This record is available at Hanover College, Dugan Library, 121 Scenic Drive, Hanover, Indiana.

2.3 The Indiana Department of Environmental Management (IDEM) and US Environmental Protection Agency (USEPA) concur in the selected response action.

2.4 The purpose of this Engineering Evaluation / Cost Analysis (EE/CA) Action Memorandum is to set forth the selected response action for the 323-Acre Wooded Site at JPG. An EE/CA was prepared to address this portion of the facility. The US Army Soldier and Biological Chemical Command is the lead response authority under the BRAC for the 323-Acre Wooded Site at JPG. The 323-Acre Wooded Site is made up of two sectors - a 312 Acre Parcel located just west of Tokyo Road and an 11 Acre Parcel located immediately north east of the 312 acre parcel. Based on the results of the EE/CA field investigation and the analysis conducted in the EE/CA document, no further action is recommended for

the 11-Acre Sector of the 323-Acre Site, while an incremental OE removal action to depth is recommended for the 312-Acre Sector.

3.0 Project Justification.

3.1 The results of OE clearance activities conducted on adjacent parcels of the 323-Acre Wooded Site at JPG identified that OE contamination of the Wooded Site was possible and could potentially have an adverse affect on the public's health and safety. While the site is currently fenced on its western boundary, the site is planned for private development and will be open to the public in the future.

3.2 JPG was used as a US Army Proving Ground between 1941 and 1995. The mission of the facility was to perform production and post-production tests of conventional ammunition components and other OE items. Units at JPG also conducted tests of ammunition propellants and other weapons systems components and tested and evaluated all types of munitions. Units at JPG performed this function almost continuously until September 1994. The facility closed on September 30, 1995 and its mission was reassigned to Yuma Proving Ground in Arizona. The 323-Acre Wooded Site is located on the western side of the cantonment area, behind the main firing line. As a result, large caliber projectiles or bombs were not expected to be encountered here. However, it was possible that the area may contain mortar rounds, rockets, or other munitions used by light infantry units. The site was divided into two sectors - one sector being approximately 312 acres in size with a smaller sector approximately 11 acres in size. The large sector is bordered by Tokyo Road to the east, Woodfill Road to the north, and by an arc running just to the east of Perimeter Road to the west. The smaller sector is located to the north east of the larger parcel and is bordered by Woodfill Road to the south and Tokyo Road to the west.

3.3 The OE effects to public safety and human environment was characterized by using a qualitative risk assessment process known as Impact Analysis. This process employs a qualitative evaluation of five components. A detailed discussion of the Impact Analysis is contained in the EE/CA report. The Impact Analysis was performed only on the 312-Acre Sector as no UXO or OE was found in the 11-

Acre Sector during the field investigation and, as a result, no further action was recommended for that sector. The Impact Analysis performed on the 312-Acre Sector concluded that a medium risk exists in this sector and that some type of response action is necessary to address that risk.

4.0 Alternatives Considered. Four alternatives were screened to address the OE risk for the 312-Acre Sector of the site. These alternatives included No DOD Action Indicated (NDAI), Institutional Controls, Surface Clearance of OE, and Surface and Subsurface Clearance of OE to Depth. The NDAI alternative was removed from consideration during the screening process as it did not meet the minimum requirements in the effectiveness category. The 11-Acre Sector was determined not to have an OE risk and, as a result, NDAI was recommended for this sector.

5.0 Highlights of Community Participation. All public involvement requirements have been satisfied during the course of the EE/CA investigation. A Restoration Advisory Board (RAB) was formed in 1994 to provide for the discussion and exchange of information related to the closure of JPG between government agencies and the public. RAB meetings are held bimonthly and are open to the public. A public meeting was held on November 9, 1999 during a regularly scheduled RAB meeting to discuss the results of the EE/CA evaluation on the 323-Acre Wooded Site. The meeting was held at the beginning of the public comment period on the EE/CA report. The public meeting was held at the Madison Presbyterian Church in Madison, Indiana. The public and media were invited to the briefing in which overheads and handouts were used to provide an overview of the EE/CA evaluation for the site. Public attendance at the meeting was moderate. Comments were received from the RAB, the IDEM, and the USEPA on the draft final EE/CA during the public comment period. The comments from these agencies and the responses to these comments are included in the Responsiveness Summary located at the end of this Action Memorandum.

6.0 Coordination Summary. The project was coordinated with the IDEM, as well as with USEPA representatives. The EE/CA report was reviewed by representatives of both the IDEM and USEPA who concurred in the findings presented in the EE/CA.

7.0 Selection Criteria. The selection criteria used to evaluate the alternatives included the effectiveness of the proposed alternatives in reducing the public safety risk, the implementability of the various alternatives, and the cost. These criteria are further discussed in Section 7 of the EE/CA report.

8.0 Description of Selected Remedy.

8.1 The selected remedy for the 312-Acre Sector is a surface and subsurface clearance of OE to depth. The selected remedy for this sector calls for an incremental approach to the OE clearance of the sector. In the first part of the field effort, a land surveyor will delineate two columns 200 feet wide running parallel to and westward from Tokyo Road, and two rows 200 feet wide running perpendicular to Tokyo Road and southward from Woodfill Road. The geophysical survey and subsurface clearance activities will proceed along the rows and columns, beginning from the roads and moving inward. UXO personnel would clear the first two consecutive rows and columns. If no UXO or OE scrap are found in this initial area, the clearance operation will be considered complete. If, however, UXO or OE scrap are found in a grid, the geophysical survey and subsurface clearance operations will clear the next two 200-foot by 200-foot grid squares in the direction of the clearance operation. This incremental approach will ensure that no UXO or OE scrap remains in the area as would be expected in the case of an impact area.

8.2 In addition to this surface and subsurface UXO and OE scrap clearance activity, five randomly selected 200-foot by 200-foot grids will be geophysically surveyed and cleared of any UXO or OE scrap. These grids will be located in the central portion of the 312-acre wooded sector where a geophysical survey had not been previously conducted.

9.0 Trade Off Analysis. The alternative recommended for the 312-Acre Sector is the best as determined by the EE/CA alternatives analysis. No irretrievable resources will be lost due to the actions proposed.

10. Documentation of Significant Changes. If the actions outlined in this EE/CA Action Memorandum are delayed or not taken, once development of the site begins, there will be a potential risk of endangerment to the public health, welfare, and environment.

11. Responsiveness Summary. See attached.